

International Business Machines Corporation

1200 West Avenue North
Sioux Falls, South Dakota 57104
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November 4, 1971

NOTED

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GLENN H. LANDIS

*Gary
FYI
Return for file*

Mr. Glen Landis
Director EROS
132 South Dakota Avenue
Sioux Falls, South Dakota

Dear Mr. Landis:

On October 13 a meeting was held with the Spitznagel Partners and Fritzel, Kroeger, Griffin & Berg Architects at their request to give them suggestions in aiding for planning toward possible computer equipment at the new EROS Center in Sioux Falls. Since the type of equipment or the complexity is completely unknown at this time, it was decided we would model the room for a 360/165. This was decided upon because that was the system used in a plan the architects had received from EROS and it has some physical considerations such as cooling that should be taken into consideration early in the development of the computer center.

Some of the things we asked the architects to keep in mind for long term planning were as follows:

Room size: We asked for a square room. Their plans showed a room approximately 40' x 120'. We explained that a square room gives more flexibility. The 4800 sq. ft. would be adequate space.

Flooring: We pointed out that a laminated plastic covered floor with 2' blocks, 18" high, with perforated blocks for air distribution is the best available. The plans call for a sunken floor and enough area is allotted for future expansion.

CE Area: No space had been planned for this. We asked for an enclosed room.

Water Cooling & M.G. Set: We recommended an insulated room adjacent to the computer room to accommodate the M.G. set and the water chiller. This space was overlooked on the drawing. We gave them

copies of our water specs and the specs on the M.G. set. We advised them not to install in a crawl space below the computer room as someone suggested.

Power: Although this building will be 10 miles from Sioux Falls, they will install underground wiring from a sub-station located 2 miles away. The possibility of a U.P.S. system was brought up, but it is not in the specs and therefore, we did not pursue it. We suggested a convenient method to supply power from the C.B. panels to the I/O units. Oversize pipes were suggested between the break panels and transformer for future expansion.

Shielding: There will be radar equipment at the site and also other equipment that could produce EMI. They informed us that the main radar will be at least a mile away and the internal equipment would be at the far end of the building. We mentioned how copper screening within the wall can be used for shielding in extreme cases. They will investigate this possibility further.

Fire Protection: The plans call for sprinklers to be installed throughout the building. If they have to be put in the computer room, we asked for a pre-action type system with high temperature heads. We suggested they install the emergency off and CO² units as per N.F.P.A. #75.

Air Conditioning: The plan is to use an EDPAC unit for the water cooling. Stand-up units exhausting under the floor will supply the computer room. Additional air from the central system will be supplied through the ceiling. EROS gave them a 210,000 BTU load to start with. Their plans called for 20 tons. We warned that this would give absolutely no room for expansion. They assured us that with this method of supply, they can very readily install an additional unit if needed. The R.H., temperature limits and filter specs were given to them.

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In a meeting held with Gary Selner from your staff and Duane Paulson, project manager for Spitznagel, on October 13, you also indicated you would like a sizing of BTU requirements for an interim system such as a 512K Model 50. I gave some approximate BTU loads for such a system to Gary Selner by telephone. These would probably be in a 100,000 to 150,000 BTU range. Should you like me to get a complete physical plan for air conditioning and power requirements, it would be necessary to have the configurations of the system. The architects indicated they were going to be planning for modular expansion both in the physical room and the mechanical and air conditioning requirements. Therefore, if expansion is necessary at a later date, it can easily be accomplished.

If I can be of any further assistance to you, please contact me.

Yours truly,



C. J. Hedlund
Field Manager
Field Engineering

CJH:fec

cc: R. F. Brown
R. J. Sunderland